

SYSTEM AND METHOD FOR RE-SEQUENCING DATA PACKETS
ON A PER-FLOW BASIS

ABSTRACT

In a network device packets are marked with sequence
5 identifiers at ingress of said device, switched through a
plurality of switching planes and re-sequence on a per flow
basis at egress of the device. The re-sequencing system
includes a controller that allocates to each received data
packet a temporary storage location in a packet buffer. A
10 plurality of output registers are provided with one of each
being associated with a flow. A pointer uses predefined
parameters to point to an output register that has been previ-
ously assigned to a flow corresponding to each received data
packet. Parameters in the pointed output register are corre-
15 lated with parameters in a received packet to determine if the
received packet is next in sequence to packets processed through
a particular queue.